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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,597	02/15/2005	Roger Edwin Clarke	534334-XXX	8841
<div>7590 Theodore D Lienesch Thompson Hine 2000 Courthouse Plaza NE 10 West Second Street Dayton, OH 45402-1758</div>			<div>EXAMINER LIEU, JULIE BICHNGOC</div>	
			<div>ART UNIT 2612</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 08/20/2007</div>	<div>DELIVERY MODE PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/524,597

Applicant(s)

CLARKE ET AL.

Examiner

Julie Lieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-29, 31 and 48-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-29, 31 and 48-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office action is in response to Applicant's response filed May 31, 2007. No claims have been amended, canceled, or added.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### *Claim Rejections - 35 USC § 103*

4. Claims 13, 14, 16, 17, 19-24, 26-29, 31, and 48-50 rejected under 35 U.S.C. 103(a) as being unpatentable over Crabtree et al. (US 2003/0034887 A1) in view of Kabala (US Patent No. a6,539,3939).

#### Claim 13:

Crabtree discloses a locating device 10 for use in a locating system comprising said locating device and a further device 11, the further device comprising transmission means 33 for transmitting an electromagnetic signal towards the locating device 10, the electromagnetic signal having a signature associated with the further device; the locating device comprising:

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- a. signature storage means (represented by fig. 4 and para [0016]) for storing a representation of the signature of the further device;
- b. at least three spaced antennas (figs. 7A and 7B) for receiving the electromagnetic signal;
- c. switching means 66 for switching the at least three antennas in such a way as to obtain a Dopplercant effect; and
- d. processing means 60 for processing the electromagnetic signal as received
- e. and outputting means 46 for producing an output indicative of the direction of the further device with respect to the locating device.

See figs 5, 6, 7A, and 7B. Also see paras. [0024] and [0028].

The reference fails to disclose the locator to detect the signature of the received signal, and to compare the signature as detected with the representation of the signature as stored. However, the concept of detecting and comparing a located device's signature, such as unique ID code, is old in the art as taught in Kabala. In light of this teaching, one skilled in the art would have readily recognized the desirability of additionally comparing the ID code from the device to be located disclosed in Crabtree because it would ensure that the received information belongs to one that is included from the list, not just any stray signal from a nearby device.

Claim 14:

The locating device 10 includes at least four spaced antennas. Fig. 9.

Claim 15:

The antennas used in Crabtree are omni directional antennas. However, it would have been obvious to one skilled in the art to use unidirectional antennas in Crabtree as desired

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because they are functionally equivalent so long as the neighboring areas are covered by overlapping of the unidirectional antennas.

Claim 16:

The device in Crabtree also comprises a distance determining means for determining the distance between the locating device and the further device, wherein the locating device is arranged to produce an output indicative of the distance between the locating device and the further device. See fig. 5.

Claim 17:

The distance determining means 32 comprises means for causing one of the antennas to transmit a further electromagnetic signal towards the further device, means for causing one of said antennas to receive a return signal from the further device, time measuring means for measuring the time between transmission of the further signal and receipt of the return signal, and estimating means for estimating the distance between the locating device and the further device based on the measured time. See para. [0074].

Claim 18:

Though not clearly disclosed by Crabtree, it would have been obvious to one skilled in the art to cause the antenna which is closest to the further device to transmit the further signal because it is desirable to measure the shortest distance between the locating device and the further device.

Claim 19:

The outputting means 46 comprises a display for displaying the direction of the further device with respect to the locating device. Fig. 5.

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Claim 20:

The display 46 is further arranged to display the distance between the locating device and the further device. Fig. 5.

Claim 21:

Crabtree disclose a notifying means for notifying a user if the distance between the locating device and the further device is larger than a predetermined value. See paras. [0127], [0130], and [0132].

Claim 22:

The locating device in Crabtree further comprises means for alerting a user if no electromagnetic signal is received from the further device. Para. [0130].

Claim 23:

The locating device in Crabtree comprises means for causing one of the antennas to transmit an initial electromagnetic signal, which is arranged to cause the further device to transmit the electromagnetic signal. Para. [0061].

Claim 24:

The locating device 10 is arranged to communicate with two or more the further devices, wherein the signature storage means is arranged to store the signatures of each further device, the signatures of each further device being different, and wherein the outputting means is arranged to produce an output indicative of the direction and/or the distance of each further device with respect to the locating device. Figs. 4 and 5.

Claim 25:

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It appears that the outputting means 46 does not produce simultaneously for each further device an output indicative of the direction and/or the distance with respect to the locating device. However, it would have been obvious to one skilled in the art to modify the system in Crabtree to produce simultaneous output indicative of the direction and/or distance for each further device because it would be informative to a user.

Claim 26:

The locating device 10 further comprising means for enabling a user to select a further device, and wherein the outputting means produces an output indicative of the direction and/or the distance for the selected further device with respect to the locating device. Para. [0061].

Claim 27:

Crabtree discloses that the locating device is arranged to receive battery charging level information from each further device, and the outputting means is arranged to produce an output indicative of the battery charging level of the or each further device, based on the battery charging level information. Para. [0082].

Claim 28:

The locating system in Crabtree includes one or more of further devices 11.

Claim 29:

The further device 11 is arranged to be carried or worn by a person, preferably a child. Paras. [0060] or [0087].

Claim 31:

The rejection of claim 31 recites the rejection of claim 13, except it is a method claim.

Claim 48:

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The rejection of claim 48 recites the rejection of claim 29, except it is a method claim.

Claims 49-50:

The locator device and the further device in Crabtree are battery powered.

***Response to Applicant's Arguments***

5. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 571-272-2978. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Julie Lieu', with a stylized, flowing script.

Julie Lieu  
Primary Examiner  
Art Unit 2612

Aug 15, 07